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## ABSTRACT

Geography papers comprise the items listed in this bibliography. The first, and major, section lists the "underground," or fugitive, publications of over 70 university departments of geography from Australia and New Zealand, United Kingdom, Canada, United States, and a few other global areas. For each country, documents are listed by university. Some of the entries have short annotations. Address, price, availability, and other notes provide ordering information for the papers. The second section of this bibliography contains reviews of ten recent papers from various geography departments. Their titles include Christaller's Central Place Theory; Ndeiya, Kikuyu Frontier; Environmental Perception and Recreation; An Introduction Welfare Geography; The Weakness of Financial Location Incentives in Promoting Regional Development; The Waters of Malawi; The Moselle; Biography Field Guide to Cascade Mountains; From Portland to the Pacific; and Commentary on a Cornbelt Countryside. (ND)

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# BIBLIOGRAPHY & REVIEW

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of  
**Geography Department**  
Discussion Papers,  
Occasional Papers  
And Monographs

56009 256

Volume 2 January 1976

Wilfrid Laurier University  
CANADA

January 30, 1976

The 1974 volume of this bibliography was well received; and we hope this revised and enlarged second volume will be considered useful.

The first, and major, section of the bibliography gives details of the "underground" publications of over 70 university departments of geography. For the most part, we have used the information in the style it was submitted to us.

Enquiries concerning the availability of any items should, of course, be addressed to the departments concerned - but experience suggests that enquirers should indicate whether they are prepared to purchase 'Xerox' copies, since supplies often don't last very long.

The second section of this bibliography comprises review notices of a selection of occasional papers (etc) actually received by the Compiler. The views expressed in these notices are the reviewers' and not necessarily those of the Compiler or Wilfrid Laurier University.

We are most grateful to all those who sent details for inclusion in Bibliography and Review (Vol. 2). It is anticipated that the third volume of the bibliography will be issued in January, 1978; and November 1st, 1977, is the deadline for receipt of corrections, additional information and new items for possible review.

Copies of this bibliography will be sent upon request - please enclose \$1.50 per copy requested (cheques should be made payable to W.L.U.).

Dr. Bruce Young  
Compiler (Vol. 2, 1976)

SECTION ONE: Information from departments at the following universities:-

## Australia and New Zealand

Australian National University  
James Cook University  
Monash University  
University of New England, Armidale  
University of New South Wales  
University of Western Australia  
University of Auckland  
Massey University

## United Kingdom

University of Aberdeen  
University of Birmingham  
University of Cambridge  
University of Dundee  
University of Durham  
University of Edinburgh  
University of Hull  
University of Leeds  
University of Liverpool  
University of Newcastle Upon Tyne  
University of Oxford  
University College, London  
Portsmouth Polytechnic  
Queen Mary College (London) University  
University of Reading  
University of Southampton  
L.S.E. (London University)  
University of East Anglia

## Canada

Carleton University  
University of Alberta  
Université de Sherbrooke  
University of Victoria  
York University - Atkinson College  
York University  
University of Manitoba  
University of Waterloo  
Wilfrid Laurier University  
Simon Fraser University  
University of Toronto  
University of Lethbridge  
McGill University  
Trent University  
University of Ottawa  
University of Guelph

United States

University of Chicago  
Clark University  
Illinois State University  
Indiana State University  
Indiana University  
Mankato State University  
Northwestern University  
Ohio State University  
Pennsylvania State University  
Southern Illinois University  
State University of New York  
University of Illinois - Urbana  
University of Iowa  
University of Kentucky  
University of Michigan  
West Georgia College  
University of Nebraska  
University of Maryland  
Kentucky University  
Syracuse University  
Portland State University  
University of Georgia  
University of Wisconsin - Oshkosh

"Other"

University of Malawi  
University of the Witwatersrand  
University of the West Indies

University of North Carolina

SECTION TWO: reviews of recent items:-

- by Richard Preston (University of Waterloo, Canada) of  
✓ Christaller's Central Place Theory by K.S.O. Beavon,  
University of the Witwatersrand.
- by Ron Garst (University of Maryland, U.S.A.) of  
✓ Ndeiya, Kikuyu Frontier by Ronald Bullock, University  
of Waterloo.
- by Geoffrey Wall (University of Waterloo, Canada) of  
Environmental Perception & Recreation by A.J. Veal,  
University of Birmingham.
- by Michael Eliot Hurst (Simon Fraser University, Canada) of  
✓ An Introduction Welfare Geography by David M. Smith,  
Queen Mary College, London University.
- by Alfred Hecht (Wilfrid Laurier University, Canada) of  
The Weakness of Financial Location Incentives in  
Promoting Regional Development by Carleton L. Dudley,  
University of Ottawa.
- by Bruce Young (Wilfrid Laurier University) of  
The Waters of Malawi by Swanzie Agnew, University of  
Malawi; and  
The Moselle by Jean Cermakian, Universite of Quebec.
- by Herbert Whitney (Wilfrid Laurier University) of  
Biography Field Guide to Cascade Mountains by  
Larry Price, Portland State University:  
From Portland to the Pacific by  
John Dart, Portland State ; and  
Commentary on a Corn Belt Countryside by  
Michael Sublett et al, Illinois State University.

The Australian National University, (Distributed by Australian National University Press) Box 4, P.O., Canberra, ACT 2600 Australia

The Australian National University, (Distributed by Australian National University Press) Box 4, P.O., Canberra, ACT 2600 Australia

G/1 (1965) E.C.F. Bird. A Geomorphological Study of the Gippsland Lakes An account of the geomorphological evolution of the coastal lagoons known as the Gippsland Lakes, with an analysis of changes in progress at the present time. \$A2.00 (out of print)

G/2 (1965) G.J.R. Linge. The Delimitation of Urban Boundaries. A report to the Commonwealth Statistician outlining European practices in the delimitation of statistical towns, with special reference to Australian urban centres. (out of print.)

G/3 (1966) H.C. Brookfield and Doreen Hart. Rainfall in the Tropical Southwest Pacific. A collection of all rainfall data available for the islands of the southwest Pacific, from West Irian to Fiji. \$A3.00

G/4 (1967) R. Ho. Farmers of Central Malaya. A Case study of rural poverty in an underdeveloped part of the humid tropics. (out of print).

G/5 (1968) P.W. Williams and J.N. Jennings. Contributions to the Study of Karst. A study of the distribution of limestone solutions in a river basin in western Ireland, and an account as to whether special karst landforms have developed in the dune limestones of the western and southern coasts of Australia. \$A2.50

G/6 (1968) N. Caine. The Blockfields of Northeastern Tasmania. A detailed study of the well-developed blockfields found on Mount Barrow and Ben Lomond in Northeastern Tasmania. \$2.50

Published by the Department of Human Geography. Research School of the Pacific Studies. Australian National University Press, Canberra, ACT 2600, Australia.

HG/7 D.J. Walmsley. Systems Theory: A Framework for Human Geographic Enquiry. Monograph

HG/8 Robert Ho and E.C. Chapman (eds). Studies of Contemporary Thailand. \$A6.00

HG/9 R.D. Bedford. New Hebridean Mobility: A Study of Circular Migration. \$A3.00 (Monograph - in preparation)

Previous Human Geography publications - Australian National Univ.

- HG/1 (1969) H.C. Brookfield and Paula Brown Glick. The People of Vila: Report on a Census of a Pacific Island Town. Out of print.
- HG/2 (1969) P.J. Rimmer. Manufacturing in Melbourne. An Analysis of Suburbanisation of manufacturing in Melbourne. \$A2.50
- HG/3 (1969) R.J. Johnston and P.J. Rimmer. Retailing in Melbourne. An investigation of the reactions in consumer behaviour that stemmed from the introduction of planned shopping centres. \$A2.50
- HG/4 (1970) P.J. Rimmer. Freight Forwarding in Australia. A Study of a new industry which combines different methods of transport to offer a door-to-door service on a single invoice. \$A2.50
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- HG/6 (1971) P.J. Rimmer. Transport in Thailand: The Railway Decision \$A2.50
- HG/7 (1972) D.J. Walmsley. Systems Theory: A Framework for Human Geographic Enquiry. Monograph \$A2.50
- HG/8 Robert Ho and E.C. Chapman (eds). Studies of Contemporary Thailand. \$A6.00
- HG/9 (1973) R.D. Bedford. New Hebridean Mobility: A Study of Circular Migration. \$A3.00

Department of Geography, James Cook University, Post Office, 4811, Queensland, Australia

David Hopley (1970). The Geomorphology of the Burdekin Delta, North Queensland. Monograph No. 1 \$A2.00

Robin J. Pryor, (1971). Internal Migration and Urbanisation: An Introduction and Bibliography. Monograph No. 2 \$A2.50

Geoffrey A. Willis (1972), The Harvesting and Transport of Sugar Cane in Australia. Monograph No. 3 \$A2.50

John Stewart (1973). Rainfall Trends in North Queensland. Monograph No. 4, \$A5.00

R.J. Pryor (1974) Internal Migration in Malaysia. Monograph No. 5, \$A3.50

Monash University, Clayton Victoria 3168 Australia

D.C. Mercer (1972) and J.M. Powell . Phenomenology and Related Non-positivistic Viewpoints in the Social Sciences. (out of print; to be published by Warner-Modular Publications, Inc., Eleven Essex Street, Andover, Mass. 01810 U.S.A.)

J.S. Whitelaw and J. Gregson (1972) Search Procedures in the Intra-Urban Migration Process. (out of print; to be reprinted, available in October, 1973 from the Department of Geography, Monash University)

J.M. Powell (1972) Images of Australia. (out of print)

R.J. Johnson (1972) Content Foci in Human Geography. (out of print)

M.C.R. Edgell (1973) Bushfire Hazard in Southeastern Australia.

J.S. Humphreys (1973) Intra-Urban Migration and Residential Structure. (in press: available in November, 1973)

J.J. Scott (1973) Alpine Vegetation Communities on Mt. Buller: Their Distribution and Spatial Patterns.

J. Graham (1973) Mental Maps: A Victorian Study.

G.J. Aplin (1973). Distance Methods of Point Pattern Analysis. and J.R. Tarrant, The Selection and Interpretation of Principal Components.

Price \$A1.50 per copy

The University of New England, Armidale, N.S.W. 2351 Australia Department of Geography

R.F. Warner (1971) The Evolution of the Landscape in Southern New England. Occasional paper. \$A1.25

J. Walmsley and R.A. Day (1972) Perception and Man-Environment Interaction. A bibliography and guide to the literature Occasional paper \$A2.50

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by Robert Freestone.
- No. 9 (1975) Internal Migration to Sydney 1971-72 and the Post  
Migration Readjustment Process, by Ian Burnley and  
Lindsay Turner.

The University of Western Australia, Nedlands, Australia

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- No. 1 John A. Dawson and I. David Murray, "Aspects of the Impact  
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Models as Frameworks for Land Use Studies".
- No. 4 A.J. Conacher, "Environment-Industry Conflict, The Manjimup Woodchip  
Industry Proposal".

The University of Auckland Private Bag, Auckland, New Zealand  
Department of Geography

J.S. Whitelaw (1961) A Survey of Kawerau: Its Present and Future Development \*

G.J. Fielding (1962) Dairy Industry in Japan \*

C.J. Sparrow (1966) Ngaruawahia, 1963 \*

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G.T. Bloomfield (1967) Boundaries of Towns and Urban Areas in Fiji \*

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A.G. Anderson (1969) Indian Small Farming in Fiji: Eleven Farms in Southern Viti Levu NZ \$1.50

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Massey University, Palmerston North, New Zealand

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5.	O'Dell Monograph No. 3 A Locational Guide to the Pont, Gordon and Blaeu Maps of Scotland (J.C. Stone)	£0.55
6.	British Antarctic Survey Scientific Report No. 70: Geomorphology of the Stromness Bay/Cumberland Bay Area, South Georgia (ed. C.M. Clapperton)	£2.00
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Occasional Publications, Department of Geography

Z.I. Gavrilova An Aeroclimatic Handbook of South America, translated by Brian D. Giles and Denis J.B. Shaw (from Russian).

Centre for Urban and Regional Studies - a list of publications is available from Gordon E. Cherry, Deputy Director, CURS, Selly Wick House, Selly Wick Road, Birmingham B29 7JF. We note here a "sample" of titles (see also the review by Geoffrey Wall in SECTION TWO):-

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Judy White and Michael Dunn	Recreational Use of the Countryside 1974.	£1.00

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Department of Geography

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Some Problems of Operationalising the Behavioural Approach in Geography

Some Operational and Conceptual Problems of Graph Theory.

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The Application of Information Theory to the Measurement of Spatio-temporal Trends in Employment Concentration.

Reading David Harvey's 'Revolutionary and Counter-Revolutionary Theory in Geography and the Problem of Ghetto Formation'.

Geographical Perspectives on American Poverty: A Review.

Some Observations on the Use of the Allometric Law in Geography.

Observations on Patterned Ground in West Schuchert Dal, Northeast England.

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<b>The Questione Meridionale in Southern Italy.</b> R. King	.60

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                to a Growth Point in Wales      60p

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Expedition to Central America 1970: General Report Vol. 1  
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by Peter A. Furley (ed.) (forthcoming)

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by B.S. Duffield, M.L. Owen 1971 (out of print)

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Recreation in the Edinburgh Area  
by B.S. Duffield, and M.L. Owen, ed. J.T. Coppock, 1971 (microfilm)

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<b>Owen, M.L., &amp; Duffield, Brian S.</b> <b>Self-Catering Accommodation in North East Scotland</b>	1973	
<b>Duffield, Brian S.</b> <b>Outdoor Recreational Traffic Patterns in the Edinburgh Area.</b> 1973 (out of print).		
<b>Tourism &amp; Recreation Research Unit.</b> <b>TRIP Series No. 1: System Description (Rev. Ed.)</b>	1974	2.50
<b>TRIP Series No. 2: Introductory User's Guide.</b> 1975		
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University of Edinburgh - continued

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The Caribbean Geographer is also published (No. 1: 1971; No. 2: 1972).

CHRISTALLER'S CENTRAL PLACE THEORY: REVIEWED, REVEALED, REVISED. By K.S.O.

BEAVON, ii and 42 pp., diagrs., bibliogr. Department of Geography and Environmental Studies, University of Witwatersrand, Occasional Paper No. 15, Johannesburg, 1975. R1.50. 9x5-3/4 inches.

Beavon has written a significant paper. It is significant because he attempts to consider and to subsequently revise assumptions regarding central place theory that are basic to an understanding of the theory widely held among geographers. Beavon argues that the post-1957 interpretation of Christaller is partially incorrect and incomplete. He states specifically that if Christaller's ideas are fully interpreted they negate Berry and Garrison's claim in 1958 that their theory of tertiary activity represents an extension of Christaller's theory. Accordingly, the purpose of Beavon's paper is to review Christaller's theoretical model and to show both how it has been misinterpreted and how the apparent extension of the theory in 1958 is not an extension but a logical deduction from the original model. Beavon's effort has four major parts.

In "Towards a System of Central Places" Beavon argues that Christaller was aware that uneven environmental conditions produce uneven territorial demands for central commodities, and that he accounted for such variations in his model. He asserts that a common misconception in this regard is that Christaller developed his theoretical settlement model from an assumption of an isotropic surface (a homogeneous plane surface with an even distribution of population). Beavon states that "Nowhere did Christaller specify an isotropic surface." By considering the range of a good concept, Beavon demonstrates logically how Christaller assumed a uniform transportation surface on which to develop his theoretical model. Thereby, he assumed a regular but not necessarily even population distribution which could be concentrated in and around urban places and thin out with distance from such places. In this section Beavon also identifies a second common misconception; namely, that Christaller developed his central place scheme on the basis of the minimum conditions required for a commodity to be offered in a market system.

In "The System of Central Places" Beavon offers a general derivation of central places according to the marketing principle that is based on the "outer limit of the range of particular commodities". He shows how lower order central places emerge and how the boundaries around central places of different orders represent the outer limit of the range of the lowest order commodity that can be offered from the central place before it becomes necessary to introduce another still lower order central place to ensure that all commodities are available to all areas in the system. It is this particular range that Christaller called the range of region. The point here is that the boundaries represent an outer limit and not necessarily a minimum threshold condition.

In "Profit Domains in the K3 System" Beavon focusses on relations between threshold area extent and the outer limit of the range (real range) of a commodity that is introduced by a linear division of overlapping circular market areas. He argues again that Christaller's central place system is based on the outer limit of the range of a commodity, that the inner limit or threshold can vary (and profits as well), and that for any commodity the threshold is a varying and not constant proportion of the range.

In "Some Characteristics of the K3 System of Central Places" Beavon considers the vertical and horizontal regularity of settlements in the K3 system. Horizontal regularity reflects both distance between and relative location of settlements of different orders while vertical regularity reflects Christaller's assumption that each higher order place offers all commodities offered by lower order

places plus some peculiar to its rank. He confronts the popular assumption that the extent of the threshold is a constant proportion of the outer limit of the range of a commodity; that is, "...that the highest order commodity offered by a place is necessarily that commodity that has the outer limit of its range equal to the range of that place." Beavon's point here is "that Christaller's system was based on the outer limit of the range of a commodity and not on the inner limit," and, thus, the outer limit of the range of a commodity can be greater than the range of the region of the place from which the commodity is offered. Moreover, provided the threshold area needed to support a commodity is less than the area delimited by the range of the region, the commodity can be offered and earn profits. With the above points in mind, Beavon states that the similarity between what he has deduced from Christaller's model and the later extension of central place theory to a theory of tertiary activity by Berry and Garrison should be apparent to those familiar with the latter theory.

Beavon's paper is written for serious students of central place theory. To that audience, it will appear thoughtful and provocative. In that context his objectives are clear, and he achieves them in an articulate manner. Readers will ponder their present interpretation of Christaller's theoretical model, and will hopefully give the possible misconceptions identified by Beavon considerable thought. Beavon identifies clearly what he considers to be significant misconceptions and in a well-documented, precise, and logical fashion reveals where the misconceptions appear and offers an alternative interpretation. Not only does Beavon lock our emergent theory of tertiary activity to Christaller's classical model, he emphasizes the importance of reviewing basic assumptions and of studying basic works for one's self rather than relying too heavily on interpretations offered by others, particularly in text books. I can find no major deficiencies in Beavon's technical materials. Both his arguments and illustrations are well-documented and straightforward. In the round, this is a solid contribution to the literature on central place theory.

Given the above evaluation, I feel the paper has two major deficiencies, both of which, it must be added, are somewhat outside the terms of reference laid down by the author. This is a paper written for specialists, but it is unfortunate that Beavon did not spell out relations between his deductions from Christaller's model and the theory of tertiary activity offered by Berry and Garrison. Given the care taken to identify misconceptions and to develop his position, the value of the work would have been enhanced by an elaboration of this key matter rather than to dismiss it as "apparent to those familiar with Berry and Garrison's work." What is bothersome, however, is the ease with which he transfers central place theory from an inter-city context to the intra-city situation. Whereas, there is substantial evidence in sources cited by Beavon (and in other sources as well) that the principle of least effort (the behavioral assumption underlying Christaller's system) prevails in inter-city situations, studies of intra-city consumer movements have cast grave doubts on the validity of that principle as an explanation of intra-city commercial structure. Without distance minimizing behavior a Christaller type hierarchy does not emerge. Some other kind of hierarchy may well emerge. Many real world configurations have hierarchical dimensions. Some are based on a rigid principle of least effort and some on more flexible behavior. Interpretation of intra-city commercial structure may well require a theory with a more flexible behavioral base than provided by central place theory. In any case, to continue to either generalize classical central place theory until it loses its considerable explanatory power, or to force it to fit spatial structures where its assumptions are totally inappropriate could well produce more of the misconceptions which Beavon has taken such care to identify and explain.--RICHARD E. PRESTON.

NDEIYA, KIKUYU FRONTIER: The Kenya Land Problem in Microcosm. By R. A. Bullock. x and 144 pp.; maps, illus. Department of Geography Publication Series, No. 1. University of Waterloo, Waterloo, Ontario, 1975. \$4.00. 9 x 6 inches.

This study looks both backward and forward in time. Backward, because it presents a very detailed land settlement history for a small area (80 square miles) in south central Kenya some 1½ miles west of Nairobi, compiled from a remarkably complete historical record, and forward because it vividly illustrates the problems that are encountered when people are forced by expanding populations to move into ever more marginal lands.

At the turn of the century, when the British were most actively colonizing Kenya, the Kikuyu peoples were largely confined to the higher elevations of the Aberdare Mountains and to the slopes of Mt. Kenya. The British alienated a considerable amount of Kikuyu land, thus restricting the ability of the Kikuyu to expand territorially. The small area (80 square miles) of Ndeiya, within the ethnic boundaries of the Kikuyu, but unoccupied due to its environmental marginality became a possible outlet for excess population. The Kikuyu, who were accustomed to more humid areas, perceived the area to be marginal, thus the land use strategies they applied were inappropriate. On the wetter portions the sub-marginality was primarily cultural, whereas on the drier margins it was more physical.

The principal conflict between the British and the Kikuyu was over land use policy. The British perceived their job to be that of controlling the people and preserving the land, rather than development of the land for the benefit of the people. Much to the chagrin of the Kikuyu, cultivation and grazing in Ndeiya were strictly controlled, again restricting the Kikuyu from expanding into an area they considered to be theirs. Unfortunately, British colonial land use policy in the area was unclear, was often misinterpreted and was always inadequately implemented.

The increased use of Ndeiya is evident from the settlement history. Early records show the 1916 population at less than 600. Through the years the number of people, and resultant population pressures, grew, so that by 1932 policy changes allowed cultivation only by permit as the entire area was otherwise restricted to grazing. As the number of cattle increased, water became more of a problem, so in 1938 the first of numerous requests to cull cattle herds was made. As demands for the use of Ndeiya increased the government acceded and divided the area into pastoral and cultivation sections, but required all residents to receive permission of the District Commissioner. Additionally, those who were permitted to live in the area were tenants of the African District Council, and could be removed from the land on a one year notice. Thus desire to preserve the land came into direct confrontation with the need for additional food producing territory.

The Emergency of the 1950's created additional problems, for in 1953 an estimated 50,000 squatters had returned to Kiambu District from Tanganyika, Rift Valley Province and Nyanza Province. These people had been evicted from these other territories in an effort to control the spread of Mau Mau. In light of such severe increases in population it became necessary to accommodate more people in the area. Two agricultural schemes resulted: the Ndeiya Grazing Scheme, comprising some 34,000 acres in the western part of the area and the Ndeiya-Karai Betterment Scheme in the eastern portion. Cultivation was confined to the wetter eastern portion where settlers were given 12 acre plots, which is about the maximum acreage a family could reasonably be expected to farm. In the grazing area, no permanent

settlement was allowed, but water holes were provided and cattle licensed, thus improving the quality of the stock. By 1959 the population of Ndeiya Location, as defined by the Kenya census, had grown to 11,400.

The problems exemplified by Ndeiya are still faced by Kenya today. With a rapidly increasing population, two basic avenues are open: 1) the technological solution, whereby the people make the area-to-yield transition and increase production on currently used land. The other alternative is to expand the amount of territory cultivated. These alternatives are not mutually exclusive for both new lands and new technology will be required. Given the marked difference with which the government and the people perceive their environment, it is necessary to reconcile these differences, for they will profoundly influence the way Kikuyu farmers respond to improved strategies for the utilization of dry environments.

When dealing with a lengthy time period and considerable detail it is easy to get bogged down in minutiae, which unfortunately happens on occasion. This problem is compounded by the use of local place names without adequate reference to a map, or any indication of location. In spite of some slight reservations about presentation, this is a highly informative investigation of the movement into a marginal area within a developing economy and is highly representative of numerous current and potential land conflicts in Africa. It is, therefore, to be highly recommended--Ronald D. Garside

**ENVIRONMENTAL PERCEPTION AND RECREATION: A review and annotated bibliography.** By A. J. Veal. v and 201 pp. University of Birmingham (U.K.). Centre for Urban and Regional Studies, Research Memorandum 39, 1974. One pound fifty p. 12 X 8½ inches.

Although not a geography department, the Centre for Urban and Regional Studies includes geographers on its staff, and, in its relatively short history, has undertaken research of considerable geographical interest. The Centre now boasts an impressive array of publications which focus upon five major areas of research: housing, employment and industry, new communities, environmental perception and recreation. The publication under consideration draws upon experiences gained in undertaking projects in two of these theme areas.

Both recreation and environmental perception have received increasing attention in recent years but their devotees are drawn from a variety of disciplines and their literatures are widely scattered. A bibliography which draws together the available materials on the interface between these two subjects is timely and has the potential to be an important research aid.

Approximately one quarter of the research memorandum is textual material which briefly reviews the literature under the following headings: introduction, techniques, attitudes to recreation in general, urban recreation, tourism, roads - pleasure driving, on-site activity and perceptual capacity, summary and conclusions. The reviewer found the concise statement on techniques of particular interest. The bulk of the study is devoted to an alphabetical listing of 475 English language references. Almost all of these are annotated with an indication of fieldwork undertaken, data collection and analytical techniques, and subject matter. Key words are also provided. The work concludes with a useful but far from comprehensive index.

Literature reviews and bibliographies rapidly become dated, and this compendium will be no exception. However, it is very reasonably priced and should establish itself as a basic reference for those involved in this rapidly expanding research frontier.

"The Weakness of Financial Location Incentives in Promoting Regional Development," by Carleton L. Dudley, Jr., Research Notes, No. 7, University of Ottawa, Department of Geography and Regional Planning, 1975.

Regional disparity is of great concern to many nations today. Many Governments see as part of their overall task an equalization of economic well being within their boundaries. The Canadian government too, has moved strongly into this area since the early 1960's. Presently, the Department of Regional Economic Expansion (DREE) administers this program in Canada. In this paper Dudley tries to investigate "the impact of the DREE incentive (program) on the long term financial operating results of Canadian manufacturing industries". Regions vary in their manufacturing costs in two respects: initial costs, which Dudley recognizes but does not deal with for stated reasons, and long run disadvantages, which Dudley considers at length. The Maritimes, for a notable example, have industrial production and sales costs five percent higher than Ontario or Quebec. Incentive offers to industry to locate in these areas have to compensate for this spatially disadvantageous factor. The analogy is made to the protection of an industry by a country with the help of tariffs. The tariffs are a continuous subsidy which give the local industry protection from foreign competition. The higher national consumer costs are thought to be less disadvantageous than the possible greater unemployment, should the tariff not exist. Tariff subsidies tend to be around 10 percent of the sales value of the commodity and incentives of such magnitude would be rather large if given.

But the offering of any kind of incentive to different companies has different impact in the location decision of these companies. Most of the grants offered by DREE are grants for the purchase of the physical plant and equipment and not usually for operating expenses. Yet this is where the greatest share of total cost occurs when taken over the life of the plant. If grants do not take this into consideration, those industries with a high capital input do receive proportionally more help over the long run than those industries with low capital input but high labour input. The tendency therefore is that capital intense industries will respond more to government incentive programmes than the labour intensive industries. The unfortunate thing is that the aim of governments is, in most instances, the creation of more jobs and with such an incentive policy, labour intensive industry receives proportionally less support. When Dudley examined, for instance, the incentive outlays for the Pulp and Paper, Saw Mills, Metals Stamping and Men's Clothing industries, he found that the incentive in terms of a percentage of the sales value of the firms ranged from 4.77 percent for the Pulp and Paper industry down to .46 percent for the Men's Clothing industry. Such low percentage incentives, especially for the labour intensive clothing industry, will consequently have very little impact on the location decision of these entrepreneurs. By examining the location incentive program from this angle Dudley is forced to conclude that the program "has by nature rather little to offer to the secondary manufacturing industries."

Dudley's short research note presents a rather solid argument why the efforts of removing regional disparities are moving ahead so slowly. It seems that without direct intervention in the location decision making process, there is little that governments can do to encourage industry to locate in the periphery of a nation. Dudley's review of Canada's regional development program is valuable reading for people with regional development interests. At the minimum it allows the reader to appreciate the problem a country has in providing equal opportunities in space for all its citizens. - Alfred Hecht

THE WATERS OF MALAWI: DEVELOPMENTS SINCE INDEPENDENCE. By Swanzie Agnew. iv and 49 pp.; maps, diagrs., bibliogr.. Department of Geography and Earth Sciences, University of Malawi. Zomba, 1975, 8x11<sup>1</sup>, inches.

THE MOSELLE: RIVER AND CANAL FROM THE ROMAN EMPIRE TO THE EUROPEAN ECONOMIC COMMUNITY. By Jean Cermakian, xiv and 162 pp.; maps, diagrs., ills., bibliogr.. Department of Geography, University of Toronto. Toronto, 1975, 6 x 9 inches.

The two items under review were received by the compiler of Bibliography and Review on the same day - and a few days before Volume 2 was finally "sent to press". Both, it was felt, merited a review notice; but there was insufficient time to seek out an expert on Malawi and an authority on European waterways. It then occurred to the compiler that the two works might usefully be reviewed together; and having for some years discussed Malawi in courses on Africa and having recently returned from a glimpse of the Ruhr, the Lippe and the Rhine, he decided he was himself equal to the task of indicating to readers the general contents of the two publications.

It is not difficult to contrast these two contributions. Professor Swanzie Agnew's occasional paper is the first from a recently-established department in an African Third World country; Dr. Jean Cermakian's study is the fourteenth from one of the oldest departments of geography in North America. The Waters of Malawi is a 50-page typed and duplicated ("stencilled") production, many of the thirteen maps of which have lost their clarity and impact in the reproduction process; The Moselle research study is the length of a small book and is printed on glossy paper and its ten figures and several plates are finely drawn and reproduced. While Malawi's paper is, perhaps, typical of the modest, low-cost departmental publication, Toronto's monograph represents the "fashion end of the line"- and the Toronto Press has, indeed, produced a very attractive volume, and one that is a cut above, for instance, the quality lithographed papers from the University of Chicago Press. Further points of contrast include the fact that The Moselle is a revised version of the author's dissertation for the Ph.D. at Berkeley and the time period discussed is from A.D. 58 to 1973, whereas The Waters of Malawi is essentially a review essay with limited objectives, dealing primarily with developments since 1966, two years after President Banda took Nyasaland out of the Central African Federation. Professor Agnew is, of course, head of the department in Malawi; but it is not clear how Dr. Cermakian, who is on the faculty of the University du Québec in Trois Rivières, comes to be in this particular Research Publication series. (Incidentally, one department that advised this reviewer that it was prepared to consider papers for publication submitted by persons other than those with a connection with the department is that at The University of Birmingham, England).

Noting that in Malawi greater material comforts, better health and a widening choice in employment opportunities "ultimately rest on the multiple uses of water and its ready availability as a continuous supply for domestic use,

industrial processing, the generation of electricity and the application of water to irrigation cropping and real husbandry" (p. 1), Agnew asserts that in these widely different fields there have been substantial gains in the past decade. Her essay is about this period - but she begins with some thoughts on the earlier colonial period. It was a time of ad hoc developments, but also the period when the complexities of the Malawian environment were slowly "pieced together and documented in a series of classical surveys and reconnaissance maps, without which the present surge in development would have been retarded" (p. 10). One wonders whether Rodney (How Europe Underdeveloped Africa, 1972), for instance, would concede that some colonialist activities produced positive results?

In the main body of the paper, Swanzie Agnew considers, in turn, soil and water conservation, domestic water supplies and rural areas, gravity flow water schemes (Table IV, which is said to show the remarkable achievements of community development schemes, is missing from the paper, it seems), Dambo cultivation, irrigated rice, Lake Malawi and the Shire outlet, fisheries, the hydrology of the lake and the river, irrigated sugar, navigation and power and the water supplies of Blantyre city. Her conclusions include the opinion that Malawi will be one of the beneficiaries of the United Nations' World Hydrological Decade (the 1970s), and she believes the country might escape many of the consequences of irrational use of water. Some 60-odd items are noted in the bibliography, ranging in time from an early (1924) Dixey paper in Nature to two recent (1974) dissertations in the author's own department. Lady Agnew has, indeed, synthesized much material in the classical geographical manner, and one's only complaints are that the objectives of her review paper are not boldly stated and that the order in the system of subheadings is not readily discernible.

Dr. Cermakian frustrates the reader anxious to see immediately where the subject of his study actually is. One may know that the Moselle valley has vineyards and one may recall that the Moselle was crossed by General Patton as the Allies drove on to the Rhine during World War Two, but one may not be able to pick it out on the map of European rivers - and Figure 1 requires the reader to find and refer to an appendix. A glance at the maps in the penultimate chapter was, in fact, necessary in order to clarify the locational essentials. Having satisfied his curiosity in these respects, the present reviewer then returned to the introductory chapter. In this, the author considers how three general notions about the role of inland navigation in regional economic geography apply to the European waterway system - of which, of course, the Moselle River is a part. And we are told that in this study "an effort is made to give proper weight to all possible approaches - economic, historical, political, technical, and geographic", but that the problem (of the creation or improvement of the transportation route) particularly warrants, and receives an "historical-political-geographic investigation" (p. 10).

This analysis of the development of the Moselle is arranged chronologically. The first of the five time periods extends over no less than 1734 years, from A.D. 58 to 1792. The river had strategic and commercial significance during the Roman period; and during Carolingian times was travelled by Charlemagne himself. The several feudal states that followed in the area used the river a great deal - "this was the age of toll-free waterways, of

flourishing city-States, and of great trade fairs all over Europe" (p.20) - but by the end of the seventeenth century "the river was so heavily burdened with tolls that a commodity shipped from Metz to the Rhine valley had doubled in price by the time it reached its destination" (p. 21). Above Metz, the river was dammed for industrial purposes, and thus lost to navigation.

The second time period (and the book's third chapter) covers 1792 to 1871. In 1792 the Principle of Free Navigation was proclaimed, abolishing all tolls, duties and taxes levied on river and canal traffic within the boundaries of the French Republic; and within five years the Moselle was affected. Between 1815 and 1871, Cermakian records, there was a rebirth of some commercial activity on the river, with coal and grain looming large, the former (and later coke) moving in from the Saar to the iron-works of Lorraine.

The title of Chapter IV is Franco-German Rivalry in the Moselle Valley (1871-1945); and it will be recalled that after 1871 Germany took the northern half of the valley, that in 1918 France got it back and in 1940 Germany took it all. There seems to be no lack of relevant references in the literature on this period of changing influences; and the author's account deals with the industrialization of Lorraine (or rather the two Lorraines, French and German), the railroad revolution, rail-versus-canal competition in Lorraine and the canalization of sections of the Moselle (and, intriguingly, the attitudes of different groups and regional interests of the projects). The chapter may well become a classic in historico-geographic narrative.

Dr. Cermakian's discussion of the 1945-1956 period is entitled European Integration and Prelude to the Final Project. It is not always easy reading - possibly because we are frequently darting forward into the 1960s, but possibly also because it was a complicated time: several non-riparian nations now had a say in the affairs of the Rhine; Monnet and Schuman were presenting plans for European integration; the ECSC was established in 1951; France was concerned with rebuilding industrial Lorraine, Germany with protecting its interests in the Ruhr and Luxembourg with ensuring that further canalization of the Moselle would be to the benefit of the Grand Duchy's own steel industry. Mirabile dictu a Franco-German-Luxembourg Convention was signed in 1956! And then (Chapter VI) we had the canalization of the river over the period 1956-1964. A brief account of the early results of the new transport situation indicates that some expectations were not realised and certain pre-canalization patterns did not alter. The author suggests that improvement of the Moselle south of Metz will now become an important consideration.

This polished study finishes with a useful review of the factors affecting the river's use; and we are reminded of the broader (east-west, north-south) transport orientations in Europe and the significance of a deep draft Moselle-Sâone link - "It will then be possible to ship goods between Marseilles, Lyons, Metz, Cologne and Rotterdam" (p. 139). Dr. Cermakian makes another plea for a common transport policy and cooperation and liberalism amongst the states concerned; and chooses to conclude (rather defensively) with the comment that "there should be a place for both historical and quantitative approaches to the study of transportation-geography" (p. 140).

- BRUCE YOUNG.

Biography Field Guide to Cascade Mountains. LARRY W. PRICE.  
 Department of Geography, Portland State University, Occasional  
 Papers in Geography, Publication No. 1, 1971. 35 pp., biblio.,  
 glossary, photos, maps.

From Portland to the Pacific: An Environmental-Studies Tour via the Wilson River Highway. JOHN O. DART:

Department of Geography, Portland State University, Occasional Papers in Geography, Publication No. 2, 1973. 83 pp., biblio., glossary, photos, maps.

Commentary on a Corn Belt Countryside: a Self-Guided Rural Experience.

MICHAEL D. SUBLETT, WILLIAM D. WALTERS, JR., and SOUTHARD M. MODRY.

Department of Geography - Geology, Illinois State University, 1973. viii and 126 pp., biblio., maps. \$3.00.

Field guides constitute a distinctive genre of geographic writing, although encompassing a variety of forms. Some are guides to extensive transects hundreds of miles long, like the historic guides to geologic features along the routes of some western railroads; others are short walking tours of largely architectural points of interest completed for visiting conventioneers. Some guides emphasize particular topics, such as those just mentioned, while others intentionally cover the variety of physical and cultural features occurring together. Some emphasize the distinctiveness of the place; others recognize local phenomena as examples of general processes working everywhere. In short, field guides mirror the various kinds of geography there are.

The three field guides listed all offer the delights of their respective areas, varied as they are. All three lay out a particular route to drive and suggest taking a full day even though the furthest point is scarcely 100 miles distant. All three are guaranteed to stir the wanderlust in any incipient traveler.

Price's guide zeroes in on "one of the most dramatic sequences of contrasting environments on earth," east of Portland, Oregon, where "within less than 100 miles, you pass from a cloudy marine climate to a semi-arid continental climate, from a lush green land with towering trees to desert shrub." In so doing, one traverses some half dozen recognizable forest and steppe regions. The author recommends specific stops along the route, and the mileages they occur at, and presents brief but adequate descriptions and explanations of the vegetation phenomena there. Physiographic and some cultural features also are mentioned when helpful for understanding the vegetation occurrences and changes. Pictures or maps on each page illustrate many of the points of the text, and make it possible for a reader thousands of miles away to get the feeling of the successive landscapes and environments .... a remarkable achievement, especially when accomplished in only 36 pages. I would certainly want this guide in my car if I were out there.

If one wishes to drive west from Portland to the Pacific coast, he would be well advised to take Dart's guide. Five natural regions, basically physiographic, are recognized, "each with its own distinctive combination of physical characteristics...interrelated and interacting to provide a particular environment and presenting its own set of problems concerning the conservation of its resources."

The author early states, "it is hoped that the guide can serve to develop understanding and interest in the natural environment." He has succeeded admirably. Pictures, maps, and charts occupy approximately every other page, and illustrate the different vegetation types, land uses, geologic features, natural and man-induced hazards, etc. This wider variety of topics, together with a writing style not quite as concise as Price's, results in a longer guide, 83 pages. The measured mileages and the suggested stops make this guide as handy to use as the one previously mentioned.

The most extensive of the three guides at 126 pages is, interestingly enough, the one for an area of limited physiographic and vegetational variation, McLean County in central Illinois. Its major features of interest are associated with its longer, more dense settlement: more transportation alternatives, more pressures on and changes in land use, more examples of problems and their various solutions, etc. House styles, local elections, past and present economic conditions, differing perceptions, changing technologies--these and many other topics get considered when appropriate to understanding the story of "each intermediate landscape feature, be it boulder, barn or birdhouse." Maps and town plans but no photographs occur every four or five pages, presenting admirably the sites and situations of numerous phenomena. Driving instructions are complete, including warnings of specially dangerous intersections, and by not using mileages from a particular starting point, one could enter the tour at any point. "A self-guided, prepackaged itinerary such as this facilitates a structured but unchaperoned confrontation between the individual and the world beyond the classroom, library, and laboratory," the authors state in a preface, suggesting they envisage the users as being primarily students. Anyone, however, would enjoy this guided tour to features and ideas which would otherwise undoubtedly be overlooked. "Should users of the itinerary gain greater insight into a special portion of central Illinois, we shall be pleased," the authors write, "but we shall be even more delighted if you emerge from the field experience with ideas and appreciations that can be applied to any area in which you find yourself." Any reader of this commentary can not help but view his own locale, wherever it may be, with enlarged vision and understanding; the authors should be pleased, the reader is rewarded. ~ Herbert A. Whitney

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SMITH, David E., An Introduction to Welfare Geography,  
Department of Geography and Environmental Studies,  
University of the Witwatersrand, Johannesburg  
Occassional Paper No. 11, 1973.

Whenever I come to write a review I have much soul-searching to go through: on the whole this says much more about the reviewers than the publications reviewed. But unlike Brian Berry, I simply do not have cookbook formulae to turn to. Having gone through a considerable evolution of epistemology myself, I cannot judge authors on what they happened to write in 1973. We can, however, compare a piece against the "disciplinary matrix" of that time and say something about Geography, whether it be the establishment of the time or its critics. Unfortunately many social scientists, and geographers are often the worst offenders, tend to see all writing as ahistoric, unrelated to individual intellectual change, unrelated to the social sciences and society as a whole.

I apologize for that lengthy introductory paragraph, but it came to mind as I read Smith's "Welfare Geography" written in 1973, evaluated as it was from my own changed perspective in 1976. But first, what did Smith attempt to do? In the six parts of his monograph, David Smith introduces the conception of a "welfare geography" based on a perceived professional need for social relevance. In the search for a theoretical framework outlined in the first three parts, he explores welfare economics and its spatial extensions, and then attempts to move from "theory" to "reality" in various production and consumption systems. "Reality" comes to the forefront in Parts 4 and 5 which deal with case studies in the United States and South Africa. The concluding section returns to the notion of relevance and the myths of objectivity, value neutrality, etc..

In 1973 to a number of people, myself included, this was "where's it at", relevant, concerned, etc., etc. Just three years later a welfare geography based on conventional welfare economics à la Chisholm simply seems apologetic, superficial, and unsatisfactory in terms of "praxis". It reminds me now of Leo Tolstov's words:

I sit on a man's back choking him and making him carry me and yet assure myself and others that I am sorry for him and wish to lighten his load by all possible means, except by getting off his back.

Poverty, crime, ill-health, poor education, alienation, and so on, are endemic to particular modes of production. Their total relief can only come with the replacement of the causative agent: in this case the capitalist mode of production and its attendant socio-economic relationships. Anything less is simply cosmetic. No matter how many ice-berg tops we top off, navigation

is not improved; in fact it is more hazardous. No matter how much we attempt to alleviate poor educational opportunities, improve health care, or introduce new work-floor relationships, we have not produced a total cure, since the root cause of these welfare symptoms are the structures of capitalism itself. To lead people to believe that improvement in superficial phenomena alone can improve their lot in the long term is merely part of a general obfuscation process. No social-democracy can produce a "welfare state" even, except in the sense of a horrendous bureaucratic dehumanizing parody of nineteenth century charity. In many cases it simply illustrates the elasticity and tenacity of the capitalist mode of production as, for example, in Sweden.

To write of welfare without writing of the causative agents that make that welfare necessary, is like trying to analyze poverty without taking account of its dialectic, wealth. To be rid of poverty and its attendant "liberal" charity, welfare, means the total replacement of an exploitative mode in which ownership of the means of production are in few hands, for one in which the *raison d'être* is the welfare of all human beings in a classless society.

Can the subject of equality of treatment, opportunity, etc., be treated within the conventional paradigms used in economics and geography as claimed by Smith in his introduction? The answer must be a resounding NO!

Smith's monograph is nothing more than a "sounding out" of what a welfare geography could be given bourgeois economics, a little tinkering here and there with ethics and values, and a dab of "relevance". Three or four years ago I was taking an equally superficial approach (see for example my, Geography of Economic Behaviour, which I now disown); Welfare geography, or "behavioral geography", as Smith describes it deserve to go no further"... than the pages of [his] paper, its exploration..." provides only to "... divert some professional energy towards... more..." apologize for the capitalist system (if I may tinker now with Smith's introduction a little). - M.E. Eliot Hurst